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## ABSTRACT

Recognizing the demand for a knowledge base to use to enhance the redesigning of the American educational system, this study adds to that base by identifying factors that are likely to lead to successful redesign. Two public elementary schools undergoing restructuring as part of the Indiana 2000 initiative were selected. One served over 180 students, many of whom were disadvantaged economically and educationally. The other school, a large school of 530 students, was a suburban school where 4% to 5% of students were minorities. Data were collected through observation, site visits, and interviews with teachers, administrators, parents, and community members. The literature review indicated the following elements as the most critical for successful redesign: (1) resources; (2) change management; (3) appropriate internal structure and culture; (4) support from the environment; and (5) clearly shared visions. The case studies did not find clearly shared visions to be as important as the other factors, possibly because of the context in which these schools are being restructured. (Contains 34 references.) (SLD)

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**Title:**

**Key Elements in Successful Educational System Redesign:  
learning from Theory and Case Studies**

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## **Introduction**

There has been an increasing perception of the need for fundamental redesign in the American educational system. This restructuring movement has received its primary impetus from the realization that the current system fails to satisfy individual learners' and societal needs as society continues to change (Banathy, 1991; Reigeluth, 1987; National Commission on Excellence in Education, 1983; Walberg, 1984; Walberg & Fowler, 1987; Branson, 1987). Not only on the national level but also on the state and local levels, countless numbers of people have put their time, energies, and resources into redesigning efforts.

Despite these attempts, however, evaluation of earlier restructuring indicates little difference in practice or achievement as compared to previous years. The more we realize efforts at redesigning have not worked well, the more we come to seek factors that would more likely ensure successful educational systems redesign. Recognizing the demand for a knowledgebase to enhance redesign, the current study aimed to add to that base by identifying factors that are likely to lead to successful redesigning of educational systems.

## **Research Objectives**

1. To synthesize the key elements involved in the successful redesign of educational systems through literature review.
2. To uncover the key elements in enhancing success in educational systems design by synthesizing data from two research sites.
3. To provide a synthesis of the key elements gleaned from existing theory and the present case study.

### **1. Key Elements: Learning from Theoretical Perspectives**

I reviewed theoretical and empirical research relevant to the factors affecting successful school redesigning so as to present a broad picture of these various elements. The review includes the following:

1. A study of the 'institutionalization' of new educational systems, based on a comprehensive analysis of institutionalization in various organizational sectors and of case studies in school restructuring (Miles and Ekholm, 1991; Miles, 1993).
2. A theoretical framework including the key elements in educational systems redesign, based on conceptions of the needs for concomitant consideration of the appropriate key elements within educational systems and their contextual relationship with societal systems (Lee, 1992).
3. A study focused on the major reasons of why most previous restructuring efforts have failed (Keefe, 1993).
4. A study of educational system elements particularly important to schools, districts, and states when moving through the systems design process (Anderson, 1993).
5. A study of the key dimensions involved in successful implementation, especially in light of teachers' view. Put differently, this study revealed those conditions under which teachers tend to be more willing and able to engage in the change process (Evans, 1993).
6. A study regarding the primary features of strategies for achieving systemic redesign of education (O'Neil, 1993).
7. A study of the support and implementation strategies identified at the Center for Educational Technology (Florida State University), based on the view that "Design requires that we are not constrained in our thinking by current practice or by limitations which may not be relevant in a redesigned system" (Salisbury, 1993, p. 135).

8. A case study of a major metropolitan public school district undergoing a fundamental restructuring process, which identifies the main factors contributing to this district's successful redesign process (Breidenbach, 1989).
9. A nationwide case study involving diverse information about the systemic restructuring process as well as its products, including the key factors related to a successful change process (Reigeluth, Norris, & Ryan, 1991).

#### **Findings from Literature Review**

From the above literature review, the following key elements in a successful redesigning process can be drawn.

#### **Visions**

Given the large-scale changes accompanying the re-examination of people's mindsets and values, it seems critical for stakeholders to clarify and share their *visions*, that is, their views of what schools should be like. These visions should be future-oriented, not limited to current conditions. Visions provide a foundation for ongoing design efforts, by supplying direction, generating new activities, and providing criteria for trouble-shooting (Miles & Ekholem, 1991, p. 15).

Visions articulated from stakeholders' core values are those most likely to be accepted. In addition, those visions should be translated into communicated and measurable goals.

#### **Comprehensive Plan**

The literature review showed the importance of formulating visions into a clear, consistent, comprehensive strategic plan. Such a plan represents "the incorporation of major and visionary recommendations into the more specific goals or blueprint" (Salisbury, 1993)

#### **Change Management**

Comprehensive educational systems redesign requires long-term effort and commitment. Therefore, the change process should be managed with willful and intelligent design strategies and skills. The literature review specifically addressed a knowledgebase relevant to the following factors: planned coordination between and among all stakeholders (internal and external), management of the pain that accompanies a long-term change process, needs analysis of individuals and groups involved in the redesigning process, change eventually to be embedded into stable organizational routines, transition management, personal and organizational learning, and avoiding staleness.

#### **Resources**

Human and physical resources, both internal and external, should be fundamental to any systemic change. Intellectual (instructional and organizational strategies/knowledge), financial, and technological resources are required to initiate as well as maintain change. In order to decrease risks and enhance the quality of redesigning efforts, multiple sponsorship is recommended (Salisbury, 1993).

#### **Networking**

Networking is essential in collaborative redesigning efforts and eventually is more likely to lead to establishment of lasting systemic change. Through a network, local schools can outreach to collaborate in studying, piloting, and supporting a new vision of the educational system.

#### **Support**

Success in redesigning a system is more likely if a school has strong external support. A significant aspect of systemic school redesigning is the environment that supports and is

complementary to the values, functions, and services of new educational systems. This is due to the fact that, viewed as open systems, educational systems are interdependent with their external environment.

State and local policy support, which includes commitment, legitimization and endorsement, alignment, and facilitation should be obtained. Without policy support and accommodation, we can hardly expect to implement envisioned changes in educational systems and instructional management in the schools and classrooms. A broad base of support and advocacy from the business community, parents, and other educational organizations also provide the support and energy necessary for the long journey to systems redesign.

### **Commitment and Ownership**

Comprehensive redesign in a system takes a long time to accomplish, demanding energy, openness, flexibility, and continuous and intensive work on the change process. Stakeholders participating in the redesign process should consider themselves as 'long-distance runners' (Miles & Eekholm, 1991, p. 14). Staff ownership and collaboration seem especially crucial to maintaining the momentum for change.

### **Internal Structures and Culture**

Redesigning is more likely if a school develops its own internal capacities through the redesign process. A school should re-conceptualize peoples' roles, relationships, and responsibilities. In addition, it should create an innovative culture that nurtures competencies, morale, and initiatives; distortion-free communication patterns, shared decisionmaking, and democratic and professional management styles.

### **Learning/Instructional System**

A coherent learning and instructional system should be designed based on the reflection of shared values, visions, and goals. Without changes in learning and instruction, all other changes have little meaning. Key learning and instructional elements to be considered include learning programs, learning strategies, the learning process, the learning environment, and assessment.

### **Leadership**

Leadership is the most important source of momentum in educational restructuring (Blase, 1986; Barth, 1990; Liberman & Miller, 1990; Goodlad, 1983; Liberman, 1988; Cohen, 1989). This is due to the fact that purposefully induced change processes require skillful and highly committed management. Especially, the primacy of authenticity and motivation in leadership have been stressed in the literature.

## **2. Key Elements: Learning from Case Studies**

Two public schools, Indiana Creek Elementary School (ICS) and Sunshine Elementary School (SES), were selected through a purposive sampling strategy (Kidder, Judd, and Smith, 1986; Merriam, 1988). These schools were researched at an earlier time for different purposes. However, they were selected for the current study since they had similarities as well as differences. Both schools were elementary schools located within a 25 miles distance from one another and were designated as Indiana 2000 --an Indiana state's restructuring initiative project -- school sites. They were different, however, in terms of organizational and community environment. The following sections describe the methodologies used and the research findings from each site.

### **Indiana Creek Elementary School (ICS)**

A qualitative case study approach was employed for four months to gather data about the school setting. The methods of data collection included participant observation, interviews, document analysis, and VAXnotes (an electronic conference). All the data were recorded by means of a personal journal.

#### **Data collection**

The primary data collection technique was observation. I visited and observed each classroom once each week from January through April of 1992. Whenever possible, I helped individual teachers as a teachers' assistant in the classroom. I also observed the general atmosphere of the school, which included students' activities outside the classroom, the classroom structure, and the school's architecture. Secondary data sources included interviews and document analysis.

The informants interviewed included the staff, students, and parents. Interviews provided information about informants' activities, feelings, and lives (Eisner, 1991). It also was necessary to analyze past events that could not be directly observed (Merriam, 1988, p. 72). The interviews with the principal were mainly formal, conducted at her office, and relatively open-ended. I took notes during the interviews, which were tape-recorded. Informal conversations were conducted with teachers, other staff, students, and parents in the interviews, in classes or at lunch time.

Documents and programs also were useful sources of information (Lincoln & Guba, 1985) for this study. These were comprised of proposals, reports or articles prepared by the staff, the school newspaper, class schedules, the monthly school calendar, activities designed by the teachers, students' progress reports, and students' work, projects, and portfolios.

#### **Data Analysis**

I employed triangulation by using different data gathering methods and different informants or sources as described above. Triangulation allowed me to detect distortion and exaggeration of information by checking the plausibility of the accounts and the reliability of informants (Whyte, 1982). I also detected and corrected distortion by comparing an informant's account with accounts given by other informants (Whyte, 1982). A regular group meeting with other university members in the evaluation project, averaging every two weeks kept me probing possible biases, exploring meanings, and clarifying interpretations and findings (Schnorr, 1990). Moreover, VAXnotes (an electronic conference) among the evaluation team<sup>1</sup> members helped me to compare multiple points of view to detect and avoid bias.

#### **Geographical and demographic Information (ICS reports, July, 1991)**

Indiana Creek Elementary School (ICS) is a K-5 school that serves over 180 students. The staff defined the socio-economic level of the local area as low; fully one-third of the students are on the federal free/reduced lunch program. In fact, over 43 percent of the adult population has not achieved a high school diploma. Consequently, a large number of students' potential was not considered to be met. The self-esteem and confidence levels of both parents and children were very low.

While ICS has only one elementary school in its school corporation, the staff still believes that the elementary school can have a dramatic effect in increasing the high school graduation rate of ICS students.

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<sup>1</sup> I worked with this school as one of the 12 evaluation team members. ICS invited us to evaluate their redesigning process.

ICS students, while all Caucasian, still represent a broad range of cultural backgrounds. While twenty-five years ago the area was predominantly an agricultural community, it is now becoming a bedroom community.

### **Process of Restructuring**

The ICS principal said, "The ideas for the restructuring of ICS were spawned at least five years ago during informal conversations of staff members at lunch, in the hallways, and at other gatherings."

In the spring of 1990, school personnel were invited to participate in the "Restructuring to Promote Learning in America's School" teleconference series sponsored by the North Central Regional Education Laboratory (NCREL) and the State Department of Education.

During the summer of 1990, the staff and several parents attended conferences, workshops, and meetings to learn more about restructuring.

As school was beginning for the 1990-91 year, these individuals participated in the redesigning efforts unanimously decided to continue pursuing their shared vision. The Design Team, composed of a broad stakeholder group and outside facilitators, sent surveys to the school community. A survey was conducted to determine what the community wanted schools to be like for their children. Based upon the input received, the Design Team developed a mission statement and supporting principles.

They used this statement to decide what issues they would address first. Then, based on the input received from meetings open to the community, they developed a plan for their first year of redesigning implementation. The major working areas, as of the fall, of 1992, were ***continuous progress, multi-age grouping, alternative assessment, thematic instruction, cooperative learning, and integration of technology.***

### **Findings**

***Professional development*** was critical in ICS, which was attempting to be a professional development school through collaboration with a higher education institution, active invitation of outside help, research, and training.

"We will spend most of the Indiana 2000 project grant money for staff development. We will use it for teachers to visit other schools, to go to conferences, and to invite workshops to come into school during the summer." (the principal)

Teachers and the principal at ICS seemed to believe in ***systemic change*** in which they should consider all possible elements simultaneously and balance them within the system. However, it might extremely aggravate the uncertainty and pressure on them.

"Once teachers understood what it was and why we do it, they'd better develop their own skill themselves." (the principal)

Yet, she admitted that it is almost too overwhelming for them and the teachers are emotionally very exhausted.

"We almost have to do everything all at once. There's so much to learn and we don't have ***time***. Instead of focusing on portfolio, alternative evaluation, etc., I'm trying to put them all on the floor. That's because everything has to go together."

is another main element, and at the same the least available resource, in ICS's redesigning process. Recently staff members have cooperated in order to redesign curriculum that fits their own needs, but have suffered from lack of time.

"We don't have enough ***time*** to talk with colleagues to share ideas and co-work." (a teacher)

"I don't have time to figure out what's going on and whether any of it's working." (a teacher)

**Management of uncertainty** also seemed to be a critical element in ICS's redesigning process. The staff at ICS needed to manage outside complaints as well as cope with business as usual. However, they seemed not to have a clear picture of what they wanted to achieve after the "disaster, confusion, and grief" involved in school redesign.

"I went to one workshop and read some articles but it is not enough to help me. I want to see them being used. I don't think I have enough references." (a teacher)

"...there is a lot of enthusiasm, but too many things are going on in class. The teachers also worry about failure. They've heard about successful 'individualized' learning. But one of the teachers said that she doesn't know how to apply it to her class. And they worry that they can't handle that situation." (an outside evaluator)

"We don't know the parameters of the Community Council yet.....Nobody can give us the answer. Because our school is different from others, we need the way that fits our school." (the principal)

" We do not have a well-structured portfolio yet. We still don't know what kind of portfolio it should be."(a teacher).

ICS did not have much time to demonstrate success. In the summer of 1991, the School Board gave the school a one-year trial period in which to implement changes. Also, not all of the parents were supportive of the school's efforts. Some parents worried that the changes would be disadvantageous for higher achievers. Some parents worried that the redesign efforts may not last long.

"These teachers are very, very dedicated. They love kids, or they wouldn't be doing this. But we all know that people can burn out."(a parent)

The staff clearly saw the need for more **communication** and **collaboration** among teachers and with the community. They tried to individualize students' learning by inviting more adults into the classrooms. **Parents and community volunteers** regularly helped teachers inside and outside each classroom. Teachers were not isolated within their classrooms anymore, but opened them to other classes and the community. They invited each other to get involved in collaborative learning activities and exchange **rewards and wishes**. In this process, they respected different perspectives and learning styles. Also, they cooperated in order to design a curriculum that fits their needs.

"The answer is time and **communication**.... What we found is we were using the wrong kinds of communication with parents -written form. Parents in general don't read written documents" (the principal).

Individual and organizational learning appeared to be a critical element in their redesign process. The staff and community members, as individuals and as a group tried to learn more about how to redesign their school system in various ways. A teacher referred to her **networking** and affiliation with Phi Delta Kappa, a state education computer group, the school's design team, the Illinois Renewal Institute, Technology 2000, the 21st Century Schools grant, and the 3 R's grant, as well as a small support group of colleagues who were dedicated to the formation of an ideal school.

**Technology, especially computers**, was considered prominent in successful redesign, especially at the level of learning and instruction. Computer activity was one of the requirements in the Choice programs. However, there was not enough systematic guidance in students' computer work, nor did

the teachers seem to have much preparation for teaching students to use computers.

"We would like to utilize computers more and get training for more efficient computer utilization." (teachers)

### **Sunshine Elementary School (SES)**

A qualitative case study approach was used to gather data from February in 1993 through August of 1993. The methods of data collection included mainly interviews, document analysis, and observation.

#### **Data Collection**

Prior to the first site-visit, I analyzed available documents, including an annual report, local newspaper clips, and some promotional pamphlets which were already available. This provided me with preparatory information about the site. Upon visiting the school, I discussed my research plan with the principal. At this pre-research meeting, I obtained more documents, which included an Indiana 2000 application and PBA(Performance Based Accreditation) documents.

The primary data collection technique involved interviews with the stakeholders most involved in the redesigning of their school system. These included an administrator, two teachers, two parents, and one community member. I mainly conducted semi-structured interviews. These interviews were guided by a list of questions or issues to be explored, but neither the exact wording nor the original order of the questions was used during the interviews. In addition, structured interviews were added to obtain some standardized information (Merriam, 1988, p. 74). Information was collected about the past, present and future by asking: What has the school done, how, and why? What have they been doing, how, and why? What are they doing, how, and why?

Key informants were interviewed individually at least twice. Follow-up interviews were made either through a meeting or phone call. I took notes during the interviews, which were audio tape-recorded. Verbatim transcriptions were made from the recorded interviews. As a non-participant observer, I observed classroom activities. After I left the room, I summarized my observations as soon as possible either on- or off-site. Then I took time to remember more substance and elaborated the scenes and dynamics at the site. Data from documents and observations were recorded for the purpose of verification.

#### **Data Analysis**

The techniques of '*unitizing*' and '*categorizing*' (Lincoln & Guba, 1985, p. 344) were used to analyze data. All data from interview transcripts, documents, and observation notes were read through several times from beginning to end. While reading, I jotted down notes, comments, and observations in the margins (Goetz and LeCompte, 1984, p. 190-191). Through this process, I identified *units* of information as the basis for defining categories. Then, selected information was summarized and categorized through the use of *codes*.

Developing categories involves seeking recurring *regularities* in data by comparing one unit of information with the next. Once the relevant sets of categories are derived from the data, they can be filled out and made more vigorous by searching through the data for more and better units of information. An alternative display, a *matrix*, was utilized for better analysis.

Interview data analysis. The data consisted of verbal accounts, derived from 3-4 hours of interview interactions. Upon completion of all interviews, the contact summaries were edited and sent to informants. Each informant was called after they received the summarized interviews -- interview summary reports --for initial verification of content. Minor editing was done through phone calls or personal contacts, according to participants' preferences. Upon conducting these verification contacts, there was one follow-up interview.

Document Analysis. Documents also were summarized and coded on the summary sheet. Primarily, the content analysis focused on measuring the frequency and variety of information,

confirming the emergent hypotheses, and advancing new categories and hypotheses (Merriam, 1988, p. 108).

Observation analysis. Data collected through observation was summarized and coded on observation summary sheets. The main focus in the observation was to answer the question, "Are they really practicing what they said they value?" The main purpose of the observation was for triangulation.

### **Demographics of school building**

Sunshine Elementary School (SES) was a relatively large elementary school of 530 students. The faculty describe their school as being somewhere between rural and suburban. However, they think they are close to being a suburban school.

There were drastic changes and growth in the school community between 1989 and 1991 with the construction of a large new school building in 1990. 50% of the families and 75% of the faculty are new. In 1989, the school had 11 staff members but by 1992 it had 52. Most parents were employed in light manufacturing or service sector jobs. Four to five percent of the students were ethnic minorities, and some used English as a second language. One of the faculty members said that most of the families were non-conventional, that is two-parent and two-income, or single parent and single income families. 10% of the school population was enrolled in the before- and after-school custodial program.

### **Process of Restructuring**

The current restructuring effort was initiated by the faculty, who saw that what they were doing was not successful and thus wanted to make changes. "Many of the faculty felt that much of the business we were doing did not meet the needs of the kids. We were seeing that many kids were not successful with what we were doing (the principal). "The driving forces are collaborative staff" (a teacher), "having leadership skills and professional excellence, having broader pictures... sharing knowledge." (a teacher).

The starting point of the current restructuring effort was differently defined by each informant. It was clear, however, that they began to think about and prepare for redesigning their school before the new building was open. They have been involved in the National Reading Styles Institute as a model school site since 1988.

In 1989, they doubled staff size and took time to get to know each other's expertise. "It was an active reorganization and data collection time for us." (a teacher).

In 1990, a new building was opened and a PBA (Performance-Based Accreditation) document was produced through the group work of faculty members, which consisted of background information on the school community, parent survey results, a mission and belief statement, goals for SES , analysis of strengths and weaknesses, and goals and strategies to improve these areas.

In 1991, SES began an ungraded primary multi-age grouping program, UP-LIFT(Ungraded Primary - Learning Is Fun together). In the same year, they started to talk about a strategic way of looking at outcome-based instruction.

In 1992, they clarified 'Exit Outcome' which is what they expect students to know and to do when they leave school. In 1992-93, they expanded multi-ungraded grouping by starting an intermediate multi-age grouping, called Project LaUnched. At the end of 1992, they developed outcome-based instruction as a faculty.

In 1993, they tried to more fully implement OBE(Outcome-based education), with each faculty member being required to develop his/her own education plan. They currently put a lot of effort into making connections among various groups within the building.

## **Findings**

Continuous and focused ***professional development*** was one of the most commonly discussed elements among informants, which was defined in terms of "collaboration" and "collegiality" among staff, as well as "self-efficacy."

"In order to achieve the learning consistent with our beliefs support from people, and staff development is really important." (a teacher)

"at SES, the successful factors for restructuring is collaborative staff, people who are collegial and are not threatened by the opportunity." (a teacher)

***Collective wisdom*** emerged as another key shared element among the informants. They believed that they needed to listen to new and different ideas and perspectives from more people both within and outside the building.

"I believe the community should be involved in their [SES'S] restructuring process for fresh perspectives. Somebody outside the system has some new and fresh ideas, not always the same old people are talking to the same old people about the same old thing. It is valuable to bring in new ideas because new ideas are the stimulus for change and there's also a result of change. That is new ideas to keep a process evolving so it won't be stagnant. (a community member)

***Administrative leadership*** also was discussed as one of the primary elements in restructuring: "Leadership is critical." Administrative leadership at SES was perceived as a successful factor in their redesigning process.

"At SES, the principal allows to be collegial and is collegial himself. He does not see me inferior and I do not see him superior. We see that each other has specific roles and we have expectations for each others for our role." (a teacher)

"The approach I've used in terms of bringing people along is collaboration and encouragement, and direction without dictation." (the principal)

***Parent involvement*** in the redesigning process appeared to be critical. Parents themselves were convinced about the importance of their support and involvement more than any other informants.

"If you're not willing to come and talk at the meeting and express your opinion, you don't have a right to complain." (a parent)

The staff members also believed that parent involvement was one of the 'should-be' factors in successful redesigning:

"Parents should be part of the change process from the beginning. . . . They are not necessarily academic educators, but they should be understanding and motivated as parents so that they should definitely be a major part of the change process." (a teacher)

***Community involvement.*** As indicated by their documents, the people at SES were mainly interested in 'community' as 'resources' which allowed them to have 'a school-wide planning time.' In the community member's part, community also perceived as an outside helper of SES's restructuring process.

"The other element of my role would have been to create a climate for acceptance of change within the overall school administration. So it would be a kind of paving the way for the principal at the upper level and further try to reinforce what he was doing" (a community member).

**Communication.** No matter what or who is involved in the change process, communication appears to be a critical factor. Streamlined communication within the school was emphasized as "the heart of what has to happen whenever people have to work together with understanding" (the principal).

"Just sharing ideas can charge people up. If not, we can be very isolated. Through communication with others we can take the best ideas and use them. Also you can iron things out, like misunderstandings." (a teacher)

**Choice.** Choice appeared to be almost a norm at SES. Staff and parents understood that changing can be uncomfortable for many people and thus people should have the final say regarding their own practice. By practicing the change strategy of 'school within a school', they attempted to "shape people's perception, not force them to be a part of change" (the principal). They also believed that change can not happen overnight.

"You don't make anybody do it. It is always voluntary here. Then people who feel uncomfortable with change will have a place to be rather than just complain." (a teacher)

**Ownership.** "Ownership" of stakeholders was assumed to be an element fostering the restructuring process. The principal defined their restructuring process as a 'bottom-up' approach where the impetus for change comes from the 'grassroots', not from the administration.

"We worked as a whole in order to discuss what we stand for and what we believe about kids.... The model works because of its belief driven and self-driven nature. It is a grassroots kind of thing so it works." (a teacher)

"SES's approach toward the community is very good. If you need community help you need to bring the community into it at the early stages. You can't just make a change and then ask everybody to support your change. I think THE PRINCIPAL understood that and involved community from the first. So people are part of the change, not just recipients." (a community member)

**Resources** were prominent, especially in the staff members' discourse as well in their main documents. The informants' assertions about their accomplishments provided good examples of the most appreciated resources: **legitimacy** of change, **money**, and **networking** with other organizations.

"The designation as an Indiana 2000 school site was significantly important since it **legitimized** what we were doing throughout the state and the school district. Also, those teachers that participated in the development of the grants had a chance to be recognized and increase their feeling of self-efficacy. It also gave us **monetary** resources that we primarily spent on staff development" (the principal).

"Designation as Indiana 2000 gave us a step of approval from the state. So politically good. And it gave us money so we could do staff development. It also brought us **network** with other people in Indiana 2000. Through the network, we can support each other. I think recognition is the main thing" (a teacher).

SES' belief about **networking** was well exhibited through its 'outreach' effort. The school hosted its own 'professional development conference' in which it invited people to see specific elements of what was being done at SES, what they thought was unique about SES, and perhaps unique for their county.

"We wanted to take pride in what we are doing and communicate it with other learning environments. We believe what we're doing can be transferred to other environments." (a teacher)

**Time** was another resource that is considered to be a critical factor in redesigning, yet not provided enough:

"If we are going to change the ways we do the business, we need to have time to collaborate" (the principal), "communicate" and "coordinate" a school-wide planning (PBA); "during the school day." (MM)

### Conclusion and discussion

The literature review allowed for considering the key elements to success in comprehensive ways, revealing internal and external factors as well as human, structural, cultural, and procedural factors. The findings of the case study mainly confirmed or elaborated on existing theory.

From these two research approaches, literature review and the case study, four elements were identified as being the most critical for a successful redesigning process: **resources, change management, an appropriate internal structure and culture, support from the environment and clearly shared visions.** Yet, we should understand that those elements work within the context of the change process and that other elements might be more critical in different cases.

Interestingly, however, the findings from the case study of the two research sites did not provide information indicating the schools held a 'clearly shared vision' was a critical element enhancing their redesigning process, unlike the literature review. Thus, it seems important to answer the question, what does this difference between other researchers' conclusions and my own results mean?

Since change is assured by "a favorable configuration of key aspects" (Miles and Ekholm, 1991), when certain elements are seriously considered, other elements also should be emphasized in order to produce the effect as planned. In addition, different schools or school districts might have their own conditions. Then, different sites need to consider different elements in order to respond to their own need in change process. As redesign emerges, key elements to be considered may shift since different design phases might demand different elements. But this is not fixed, being a contextual and relative matter depending on what happened before, what has been going on recently, and what should happen in the course of redesign process.

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